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FEDERAL COMMUNICATIONS COMMISSION

OFFICE OF THE SECRETARY

RICHARD H. STRODEL ADMITTED IN D.C. AND VA

October 21, 1993

Mr. William F. Caton Acting Secretary Federal Communications Commission Washington, D.C. 20554

Re: Docket No. 92-9; Second Report and Order

Petition for Partial Reconsideration

Dear Mr. Caton:

On behalf of Western Tele-Communications, Inc., there are enclosed herewith an original and 11 copies of its Petition for Partial Reconsideration of the Commission's <u>Second Report and Order</u> in Docket No. 92-9 which was released on August 13, 1993. This petition is timely filed as notification of the Commission action was published in the <u>Federal Register</u> of September 22, 1993.

Sincerely yours,

Richard H. Strode

RHS/ned

Enclosures: (12)

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Before The  Federal Communications Commission  Washington, D.C. 20554  Washington, D.C. 20564  RECEIVE  Communications  OFFICE OF THE SECRETARY  RECEIVE  OFFICE OF THE SECRETARY	
In The Matter Of )	/ Party
Redevelopment of Spectrum to ) Encourage Innovation in the ) Use of New Telecommunications ) Technologies )	Docket No. 92-9 RM-7981 RM-8004

## Petition For Partial Reconsideration

WESTERN TELE-COMMUNICATIONS, INC.

Richard H. Strodel Its Attorney

HALEY, BADER & POTTS Suite 900 4350 North Fairfax Drive Arlington, VA 22203-1633 703/841-0606

October 21, 1993

Federal Communications Commission

Washington, D.C. 20554

In The Matter Of

Redevelopment of Spectrum to
Encourage Innovation in the

Use of New Telecommunications

Reference Communications

Reference Communications

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OFFICE OF THE SECRETARY

RM-7981

RM-8004

### Petition For Partial Reconsideration

Technologies

Western Tele-Communications, Inc. ("WTCI"), by its attorneys, pursuant to §§ 1.429(a) and (d) of the Rules, hereby files this Petition for Partial Reconsideration ("Petition") of the Commission's Second Report and Order (FCC 93-351) herein, released August 13, 1993 and published in the Federal Register on September 22, 1993 ("2nd R&O"). WTCI is requesting further consideration and emphasis with regard to the use of 2 GHz government frequencies (1.71 - 1.85 GHz), correction of the stated 4 GHz frequency plan, clarification of the new rule provision relating to automatic transmit power control ("ATPC") and a Further Notice of Rule Making proposing general common carrier use of the 6.4 GHz frequency band (6425 - 6525 MHz). WTCI is an active participant in this proceeding, and the portions of its prior pleadings relating to the foregoing four points are incorporated herein by reference.1

<sup>&</sup>lt;sup>1</sup> WTCI filed Comments on December 11, 1992, Reply Comments on January 27, 1993 and Supplemental Comments on March 5, 1993, the latter two being supported by Engineering Statements of WTCI's consultant and former Vice President-Engineering. These are collectively referred to herein as WTCI's "Comments" unless otherwise indicated.

### **Introductory Summary**

As indicated above, WTCI's Petition concerns clarifications and corrections of certain Rules promulgated by the 2nd R&O and includes a renewed request for a Further Notice of Rule Making to permit common carriers to utilize the additional 100 MHz of frequency spectrum above the 6 GHz common carrier band of 5925 - 6425 MHz. WTCI also continues to urge the Commission to emphasize and encourage the use of the 2 GHz government band (1.75 - 1.85) GHz immediately below the existing 2 GHz band now being utilized by private microwave users to be relocated, thereby reducing substantially the relocation costs to be borne by PCS providers and their subscribers.

Secondly, WTCI is requesting the Commission to reconsider and to issue a Further Notice of Rule Making proposing general common carrier use (rather than just LTL service) of the 6425 - 6525 MHz frequency band. This 100 MHz of spectrum is particularly valuable to common carriers, because the capacity of their existing systems in the 6 GHz band can be readily expanded with minimal expense and retuning of existing equipment to utilize this additional frequency spectrum. These 6425 - 6525 MHz frequencies, which can be utilized by co-primary private users, should also be available for general common carrier use.

Lastly, WTCI is requesting the Commission to correct the 4 GHz frequency plans adopted in new §§ 21.701(d) and 94.65(g) of the Rules. While it is stated in the 2nd R&O that the existing 4 GHz and 20 MHz channelization plan should not be modified, the 4 GHz frequency plans

set forth in Appendix A, while continuing the use of 20 MHz channels, inadvertently employ an alternating channel plan rather than the existing interleaved channel plan used by all carriers. WTCI is also requesting clarification as to the applicability of the ATPC Note added to § 21.710(b) of the Rules. WTCI believes that ATPC should be included in Part 21 of the Rules in the same way it is referenced in revised § 94.45(a)(10) of the Rules.

## I. Use of the 1.71 - 1.85 GHz Government Band by Existing 2 GHz Users Should be <u>Emphasized and Encouraged</u>

WTCI and almost all other commenting parties stressed the desirability of using the 1.71 - 1.85 MHz government frequency spectrum to accommodate private users relocating from the 2 GHz band. As WTCI pointed out in its Reply Comments, the cost of modifying 2 GHz existing facilities to operate in the 1.71 - 1.85 GHz band would be minimal and could be accomplished expeditiously, as compared to the approximately \$4 billion cost of moving 2 GHz users to the 6 GHz and higher bands and the resulting delays and disputes.

While the Commission in paragraphs 73-74 of the 2nd R&O stated that it would work with NTIA to make available some 1.71 - 1.85 GHz government spectrum to those relocating from the 2 GHz band, these efforts were premised on NTIA's referenced August 19, 1992 report that concluded this government band could "accommodate a limited number of non-government 2 GHz microwave links" (para. 74). The

emphasis here and in the <u>Third Report and Order and Memorandum</u>

<u>Opinion and Order</u> (FCC 93-351) in this docket, also released

August 13, 1993, is on relocating to the 1.71 - 1.85 GHz band the 2 GHz microwave links that "cannot operate reliably at 6 GHz" and above (para. 30).

WTCI is urging the Commission on reconsideration to emphasize the economies and efficiencies of using the 1.71 - 1.85 GHz government band for relocated 2 GHz users and to encourage those moving from the 2 GHz band to consider <u>first</u> the possibilities of using these immediately adjacent and compatible government frequencies. The existing 2 GHz users are in large part concentrated in and around the major metropolitan areas, while the government users in the 2 GHz band generally operate outside of these major metropolitan areas. Accordingly, in almost all instances, with perhaps the exception of heavy government use in the Los Angeles and Washington D.C. areas, the existing 2 GHz users can readily move to government frequencies in the 1.71 - 1.85 GHz band at minimal cost and modification to their facilities and operations.

In contrast, the relocation of 2 GHz users to the 6 GHz and higher bands will be extremely costly and will retard PCS development and the resulting gains in economic growth and productivity. As set forth in WTCI's Reply Comments (pp. 7-9), the costs of converting existing 2 GHz operations to the higher bands is enormous, estimated to be in the range of \$2.75 billion by the OET study, and at least \$3.75 billion by WTCI, because of the inability to replace 2 GHz systems without substantial or complete replacement of towers, sites and related

cost items. These very substantial costs of conversion will have to be borne by PCS providers, and ultimately by the public using PCS services. Thus, the failure to make significant use of the adjacent 1.71 - 1.85 GHz frequency spectrum will inhibit PCS development and the economic activity and competitiveness that PCS usage will engender.

Accordingly, WTCI respectfully requests the Commission to reconsider its limited emphasis on the use of the 2 GHz government band and to provide that 2 GHz users moving from that band should <u>first</u> thoroughly investigate the use of the adjacent 1.71 - 1.85 GHz frequency spectrum for their modified 2 GHz systems. The Commission should proceed to work diligently with NTIA to identify available government frequencies and to set up a workable mechanism that will facilitate the assignment of such frequencies to 2 GHz users.

# II. The 6425 - 6525 MHz Frequency Band Should be Made Available for General Common Carrier Use

WTCI renews its request that the Commission issue a Further Notice of Rule Making proposing to provide that the 6425 - 6525 MHz common carrier frequency band presently limited to LTL use be opened up to general common carrier usage. While this LTL band was originally allocated for remote and local broadcasts to television studios, this band is now lightly used and vacant in many areas, as these services are now being provided by transportable satellite units and by Electronic News Gathering (ENG) facilities. Thus, there is no need to continue reserving this 100 MHz of frequency spectrum for LTL services.

The 6425 - 6525 MHz frequency band is particularly valuable to major common carriers operating extensive 6 GHz systems, such as WTCI and other carriers participating in this docket. This 100 MHz of spectrum, which is located just above the heavily used 6 GHz common carrier band of 5925 - 6425 MHz, can be readily incorporated into existing 6 GHz systems to expand their capacity at minimal cost. The antennas and waveguides of the 6 GHz systems can be used for the added frequencies above 6425 MHz, and common carrier 6 GHz radio equipment now in place or in carrier inventories can easily be retuned to the 6425 - 6525 MHz band. Thus, the capacity of existing common carrier 6 GHz systems can be increased by a significant 20%, at almost no cost, by reallocating the LTL common carrier spectrum to general common carrier usage.

Accordingly, the public interest in the more efficient use of the frequency spectrum clearly will be served by permitting general common carrier usage of the 6425 - 6525 MHz frequency band. Also, the common carrier trunkline systems that could readily utilize this additional 100 MHz of spectrum are for the most part intercity routes that are located in rural and lightly populated areas that have always had few LTL facilities. Furthermore, this 6425 - 6525 MHz frequency band is the only frequency spectrum that has not been allocated for co-primary use by both common carriers and private microwave users, creating an imbalance of available frequencies that certainly is not intended by the Commission. For all of the foregoing reasons, the Commission should promptly issue a Further Notice of Rule Making (or a new rule making) proposing to allocate the 6425 - 6525 MHz band for general common carrier usage.

## III. The 4 GHz Frequency Plans Adopted in Parts 21 and 94 of the Rules Should be Corrected to Reflect the Intended <u>Presently Existing Frequency Plans</u>

While the 4 GHz common carrier band was reallocated for coprimary use by private users, the Commission in the 2nd R&O concluded (para. 16) that it would not change the present channelization of the 4 GHz band as proposed in the <u>Further Notice</u>, but that the existing 4 GHz frequency plan used by terrestrial carriers and coordinated to by satellite interests would be incorporated into Parts 21 and 94 of the Rules. However, new §§ 21.701(d) and 94.65(g), though continuing the 20 MHz channelization, set forth a high/low channel configuration rather than the interleaved channel plan which is in use today. Thus, in returning to the present 20 MHz channel spacing, the Commission inadvertently failed to change from the alternating plan proposed in the <u>Further Notice</u> to the existing interleaved channel plan, as intended.

The Commission's primary rationale for not changing the existing 4 GHz frequency plan, namely that currently licensed satellite operations would receive substantial interference, would be subverted if the present high/low channel configuration is not changed. As WTCI pointed out in its Comments and as acknowledged by the Commission in paragraph 11 of the 2nd R&O, the implementation of a new 4 GHz frequency plan would require terrestrial carriers to change their existing equipment and operations, resulting in unnecessary costs and further coordination and interference difficulties with respect to satellite licensees and receivers.

Accordingly, WTCI requests that the frequency plans for the 4 GHz band, as stated in § 21.701(d) and also § 94.65(g), be corrected and changed to the current, interleaved frequency plan, as set out below:

Transmit	Receive
(receive)	(transmit)
(MHz)	(MHz)
3730	3770
3810	3850
3890	3930
3970	4010
4050	4090
4130	4170
3710	3750
3790	3830
3870	3910
3950	3990
4030	4070
4110	4150
4190	4198

# IV. The Reference to ATPC in Part 21 of the Rules Should be Clarified

The <u>Further Notice</u> proposed (para. 33) that automatic transmit power control (ATPC) be explicitly authorized in Part 21 of the Rules to provide that any change in the radiated power resulting from the use of ATPC shall not be greater than 3 dB. It also proposed that § 94.45(a)(10) of the Rules permitting ATPC for private users be clarified by substituting the word "increase" for "change".

However, in the course of the proceeding, WTCI and other common carrier commenters, and also NSMA, proposed that the Part 21 rule revision provide that ATPC increases shall not be greater than 10 dB

rather than 3 dB. This proposal for a 10 dB increase was based on the fact that common carrier systems are coordinated, and equipment is manufactured for use in the common carrier bands, on the assumption that the transmitting equipment will normally operate at 10 dB below the authorized power, with ATPC allowing the transmitters to increase in power to the extent of 10 dB to accommodate fade margins. In other words, common carrier systems are designed to operate 10 dB under their authorized power to improve the interference tolerance between systems on the assumption that operation up to the authorized power will only occur from .05 to .10% of the time to offset fade margins.

WTCI therefore assumes, but requests Commission confirmation, that the Note in revised § 21.710(b) permitting 3 dB ATPC increases in measuring EIRP refers only to increases above the licensed power. This would be consistent with revised § 94.45(g) which allows 3 dB increases in power without obtaining a modified license. Under these circumstances, WTCI and other common carriers operating under Part 21 may continue their existing practice of using 10 dB ATPC for the purpose of reaching but not exceeding their authorized power output. (WTCI suggests that perhaps § 21.107(c) of the Rules might be modified to refer to the use of ATPC to the extent of 3 dB above authorized power rather than inserting the Note in § 21.710(b).)

### V. Conclusion

For all of the foregoing reasons, WTCI respectfully requests the Commission on reconsideration of the 2nd R&O; 1) to give primary

emphasis to the use of the 1.71 - 1.85 GHz government band frequencies for those relocating from the 2 GHz band, 2) to issue a Further Notice of Rule Making for the allocation of the 6425 - 6525 MHz frequency spectrum for general common carrier usage, 3) to correct the 4 GHz frequency plan set forth in Parts 21 and 94 of the Rules to an interleaved channel plan, and 4) to confirm that the new ATPC provision in Part 21 of the Rules applies only to operations that exceed the licensed power.

Respectfully submitted,

WESTERN TELE-COMMUNICATIONS, INC.

Richard H. Strode

Its Attorney

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October 21, 1993

#### CERTIFICATE OF SERVICE

I, Nancy E. Davies, a secretary in the law offices of Haley, Bader & Potts, hereby certify that the foregoing "Petition for Partial Reconsideration" was mailed this date by First Class U.S. Mail, postage prepaid, or was hand-delivered\*, to the following:

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October 21, 1993